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LAMINATE FOR ELECTRICAL APPARATUS AND PRINTED-WIRING BOARD

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ABSTRACT

PURPOSE: To obtain laminate for electrical apparatus and printed-wiring board, in both of which no separation of through hole plating occurs, by a method wherein laminates, in each of which metal foils are arranged on the top surface and/or under surface of the required number of specified resin-impregnated base materials, are laminated to one another into an integral body and laminates, in each of which outer layer materials are arranged through the required number of resin-impregnated base materials, are laminated to one another into an integral body.

CONSTITUTION: The laminate for electrical apparatus concerned is obtained by laminating laminates, in each of which metal foils are arranged on the top surface and/or under surface of the required number of base materials impregnated with inorganic filler-containing thermoset ting resin having a glass transition temperature of 180 deg.C or higher, to one another into an integral body. Further, the printed-wiring board concerned is obtained by unitedly laminating laminates, in each which outer layer materials are arranged through the required number of resin-impregnated base material, to one another into an integral body. Consequently, since the difference between the expansion coefficients of the laminate for electrical apparatus and of the printed-wiring board becomes small and at the same time anchoring effect develops at through hole part due to roughened surface, the separation of through hole plating can be remarkably prevented from occurring. As the resin, single phenolic resin, cresylic resin, epoxy resin or the like, their mixture or their modified resin, each containing inorganic fiber, which is 5-30wt.% or the resin, is used. As the base material, inorganic fiber made of glass, asbestos or the like, organic synthetic fiber made of polyester or polyacrylic resin and natural fiber such as cotton or the like is employed.
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Mfg. copper lined metal plates with resin insulation layers - by impregnating glass cloth with polyepoxy resin, drying placing on metal plate and covering with copper foil

Patent Assignee: SHIN KOBE ELECTRIC MACHINERY (KOBE)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
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Abstract (Basic): JP 63270106 A

Cu lined metal plate having an insulation layer is produced by impregnating glass cloths with epoxy resin contg. inorganic filler, drying them to produce a prepreg (2), placing the prepreg on a metal plate (3), and a Cu foil (1), on the prepreg, and curing the prepreg with heat under pressure. The prepreg has thickness of 0.05-0.2mm as thickness of insulation layer after curing and coefft. of thermal expansion less than 1.5 x 10 power 4/deg.C.

USE/ADVANTAGE - Cu lined metal plate used for supporting power transmitter or power chips is obtd. The metal plate has an excellent heat radiation property and chips can securely be soldered on the plate.

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Title Terms: MANUFACTURE; COPPER; LINING; METAL; PLATE; RESIN; INSULATE; LAYER; IMPREGNATE; GLASS; CLOTH; POLYEPOXIDE; RESIN; DRY; PLACE; METAL; PLATE; COVER; COPPER; FOIL
Derwent Class: A21; A32; M13; P73; V04
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